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EXAMINER	
JUNTIMA, NITTAYA	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/932,739	EL-FEKIH ET AL.	
	Examiner	Art Unit	
	Nittaya Juntima	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-135* is/are pending in the application.

4a) Of the above claim(s) *2,35-45,47,80-90,92 and 125-135* is/are ~~withdrawn from consideration~~ Cancelled.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *See Continuation Sheet* is/are rejected.

7)☒ Claim(s) *8, 10, 13, 15, 19, 22, 25, 26-34, 53, 55, 58, 60, 64, 67, 70-79, 98, 100, 103, 105, 109, 112, and 115-124* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims rejected are 1,3-7,9,11,12,14,16-18,20,21,23,24,46,48-52,54,56,57,59,61-63,65,66,68,69,91,93-97,99,101,102,104,106-108,110,111,113 and 114.

DETAILED ACTION

1. This action is in response to the Amendment filed on 4/27/2006.

2. The objections to the claims are withdrawn in view of applicant's amendment.

3. Claims 1, 3-7, 9, 11-12, 14, 16-18, 20-21, 23-24, 46, 48-52, 54, 56-57, 59, 61-63, 65-66, 68-69, 91, 93-97, 99, 101-102, 104, 106-108, 110-111, and 113-114 are currently rejected under 35 U.S.C. 103(a).

4. Claims 2, 35-45, 47, 80-90, 92, and 125-135 were cancelled.

5. Claims 8, 10, 13, 15, 19, 22, 25, 26-34, 53, 55, 58, 60, 64, 67, 70-79, 98, 100, 103, 105, 109, 112, and 115-124 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 3-7, 16-17, 20-21, 46, 48-52, 61-62, 65-66, 91, 93-97, 106-107, and 110-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yaakov (USPN 6,748,433 B1) in view of Lin et al ("Lin") (USPN 6,405,250 B1).

Regarding claims 1, 3, 46, 48, 91, and 93 as shown in Fig. 1, Yaakov teaches a method of managing a service, comprising the steps of:

Obtaining service quality requirements from a client (Service Level Agreement stored in block 30 is signed by the client, col. 4, lines 6-20, and col. 7, lines 39-40).

Collecting quality data from a network that comprises a plurality of network elements (quality parameter data is collected from a network 10 by RTU 20, received by a Data Collector 28, and used in calculating the OQS, col. 7, lines 16-25, 35-42, and col. 8, lines 7-20), comprising:

Saving the quality of data quality parameter data in a repository (Data collector 28, col. 7, lines 25-38).

Analyzing the quality data (CDRs are built and the values of the collected quality parameters p_i are determined for the route under examination, col. 7, lines 35-38).

Saving the analyzed quality data in the repository (since parameters p_i for the route under examination must be sent to unit 32 for OQS calculation, col. 7, lines 35-44, therefore, the determined parameters p_i for the route examination must be saved in the Data collector 28).

Comparing the collected quality data with the service quality requirements to determine if the service quality requirements are satisfied (since (i) the SLA comprises the selected weights and the selected OQS parameter, col. 4, lines 6-20, (ii) OQS is based on the weight functions and parameters p_i, col. 3, lines 8-25, and (iii) the calculated OQS, which is based on the collected quality parameter data, is compared with the SLA's OQS, col. 7, lines 47-51 and col. 8, lines 21-

25, therefore, the collected quality parameter data must be compared with the SLA to determine whether the expected level of quality corresponds to the real level).

Although Yaakov teaches at lease one access network element 16 in Fig. 1 which is one of network elements that are configured at an edge of the network (10) and provide access to the network (col. 7, lines 5-9), Yaakov fails to teach querying the access network element for the quality data.

As shown in Fig. 1, Lin teaches querying at least one access network element (101) for quality data (the NMS sends a request to get the update of network status from NE 101 and the NE 101 reports to NMS through its associated management agent, col. 3, lines 26-37, 40-46, col. 6, lines 12-19, and col. 8, lines 41-48).

Given the teaching of Lin, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Yaakov to include the teaching of Lin such that querying at least one access network element for the quality data would be included as recited in the claim. The suggestion/motivation to do so would have been to enable the network element to report network status/parameters upon a triggering of an external event, e.g. a request from the NMS, as taught by Lin (col. 6, lines 12-19).

Regarding claims 4, 16, 49, 61, 94, and 106, Yaakov teaches that the network (10 in Fig. 1) comprises a VPN (a VPN reads on routes on network 10 in Fig. 1 that carry the client's traffic based on the signed SLA, col. 4, lines 6-20 and col. 7, lines 5-7), wherein the access network element (16 in Fig. 1) comprising one network interface (input port), computing an availability measure for the VPN (the value of P4 – line availability for the route under examination is determined, col. 3, lines 8-26, 43-46, col. 7, lines 25-38), and computing a delay measure for the

VPN (the value of P3 – packet delay for the route under examination is determined, col. 3, lines 8-26, 39-42, and col. 7, lines 25-38).

Yaakov does not explicitly teach that the VPN is an ATM VPN that comprises at least one virtual channel. However, Yaakov further mentioned that the network 10 in Fig. 1 is a PSTN (col.7, lines 5-7) and that the PSTN and ATM networks are similar in such a way that the routing is accomplished in a fixed way (col. 4, lines 34-36). Further, an official notice is taken that an ATM VPN comprising at least one VC is well known in the art for its availability as a service provided by many service providers for transporting voice and data components under subscribed quality levels. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined teaching of Yaakov and Lin to include an ATM VPN that comprises at least one virtual channel as recited in the claims. The suggestion/motivation to do so would have been to enable the network to accomplish the routing and measuring in a fixed way and to transport the client's voice/data components under subscribed quality levels.

Regarding claims 5, 17, 50, 62, 95, and 107, Yaakov does not teach that the availability/delay measure of the VPN is based on the availability/delay measure of the at least one VC. However, Yaakov teaches that the availability/delay measure for the VPN, e.g. the value of P4 – line availability and the value of P3 – packet delay are determined for the route under examination (col. 3, lines 8-26, 39-46, col. 7, lines 25-38), and the PSTN 10 in Fig. 1 and the ATM network are similar in such a way that the routing is accomplished in a fixed way (col. 4, lines 34-36 and col. 7, lines 5-7). Further, an official notice is taken that an ATM VPN comprising at least one VC is well known in the art for its availability as a service provided by

many service providers for transporting voice and data components under subscribed quality levels. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined teaching of Yaakov and Lin to include that the availability/delay measure of the VPN is based on the availability/delay measure of the at least one VC (e.g. one route) as recited in the claims. The suggestion/motivation to do so would have been to enable the network to accomplish the routing and measuring in a fixed way and to transport the client's voice/data components under subscribed quality levels.

Regarding claims 6, 51, and 96, Yaakov teaches computing for at least one route of the VPN (the VPN reads on routes on PSTN 10 in Fig. 1 that carry the client's traffic based on the signed SLA, col. 4, lines 6-20 and col. 7, lines 5-7) under examination a MTTR (MTTR, col. 3, lines 8-26, 43-46, col. 7, lines 25-38) and a MTBSO (reads on MTBF, col. 3, lines 8-26, 43-46, col. 7, lines 25-38).

Regarding claims 7, 52, and 97, Yaakov does not teach that the computed MTTR and the MTBSO (MTTR and MTBF determined for the route under examination, col. 3, lines 8-26, 43-46, col. 7, lines 25-38) are based on the at least one VC. However, Yaakov further mentioned that the PSTN (network 10 in Fig. 1) and ATM networks are similar in such a way that the routing is accomplished in a fixed way (col. 4, lines 34-36). Further, an official notice is taken that an ATM VPN comprising at least one VC is well known in the art for its availability as a service provided by many service providers for transporting voice and data components under subscribed quality levels using ATM VC. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined teaching of Yaakov and Lin to include an ATM VPN that comprises at least one VC such that the MTTR and the MTBSO

would be based on the at least one VC as recited in the claims. The suggestion/motivation to do so would have been to enable the network to accomplish the routing and measuring in a fixed way and to transport the client's voice/data components under subscribed quality levels.

Regarding claims 20-21, 65-66, and 110-111, Yaakov teaches that the network (10 in Fig. 1) comprises a VPN (a VPN reads on routes on network 10 in Fig. 1 that carry the client's traffic based on the signed SLA, col. 4, lines 6-20 and col. 7, lines 5-7), wherein the access network element (16 in Fig. 1) comprising one network interface (input port), and computing an error measure including a number of lost packets (the value of P3 – packet loss for the route under examination is determined, col. 3, lines 8-26, 39-42, and col. 7, lines 25-38).

Yaakov does not explicitly teach that the VPN is an ATM VPN that comprises at least one virtual channel, the computed error measure is for a VC, the determined number of lost cells is for the VC and computing a CLR for the VC. However, Yaakov further mentioned that the network 10 in Fig. 1 is a PSTN (col.7, lines 5-7) and the PSTN and ATM networks are similar in such a way that the routing is accomplished in a fixed way (col. 4, lines 34-36). Further, an official notice is taken that an ATM VPN comprising at least one VC carrying traffic in cell is well known in the art for its availability as a service provided by many service providers for transporting voice and data components under subscribed quality levels using ATM VC, and computing a CLR for a VC is also well known concept in the art for providing and guarantee QoS in an ATM network. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Yaakov to include an ATM VPN that comprises at least one virtual channel and computing a CLR for a VC such that one skilled in the art would arrive at computing error measure including a number of lost cells for a VC and

computing a CLR for the VC as recited in the claims. The suggestion/motivation to do so would have been to enable the network to accomplish the routing and measuring in a fixed way and to transport the client's voice/data components under subscribed quality levels.

8. Claims 9, 11-12, 14, 54, 56-57, 59, 99, 101-102, and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yaakov (USPN 6,748,433 B1) in view of Lin et al ("Lin") (USPN 6,405,250 B1), and further in view of Riggan et al. ("Riggan") (USPN 5,898,673).

Regarding claims 9, 54, and 99, the combined teaching of Yaakov and Lin does not teach associating an availability threshold with the VPN, and comparing the availability measure for the VPN with the respectively associated availability threshold .

However, in a similar ATM network, as shown in Fig. 5, Riggan teaches associating a bandwidth availability threshold (T) with an ATM network subscribed by a user (step 402, col. 9, lines 19-30) and comparing the bandwidth availability measure (network usage information) for the network with the respectively associated availability threshold (step 410, col. 7, lines 43-52).

Given the teaching of Riggan, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined teaching of Yaakov and Lin to include the concept of threshold and comparing the measured value with the threshold such that associating an availability threshold with the VPN, and comparing the availability measure for the VPN with the respectively associated availability threshold would be included as recited in the claims. The suggestion/motivation to do so would have been to enable the network management system to monitor whether the user has exceeded the QoS threshold (col. 4, lines 42-45) and for the network to appropriately treat the incoming user's traffic (col. 4, lines 48-60).

Regarding claims 11-12, 14, 56-57, 59, 101-102, and 104, Yaakov teaches that the network (10 in Fig. 1) comprises a VPN (a VPN reads on routes on network 10 in Fig. 1 that carry the client's traffic based on the signed SLA, col. 4, lines 6-20 and col. 7, lines 5-7), wherein the access network element (16 in Fig. 1) comprising one network interface (input port).

The combined teaching of Yaakov and Lin does not explicitly teach that (i) the VPN is an ATM VPN that comprises at least one virtual channel, (ii) computing a bandwidth utilization measure for the VPN based on at least one VC and comparing the bandwidth utilization measure for the VPN with an over utilization threshold and an under utilization threshold.

(i) Regarding the ATM VPN, Yaakov further mentioned that the network 10 in Fig. 1 is a PSTN (col.7, lines 5-7) and that the PSTN and ATM networks are similar in such a way that the routing is accomplished in a fixed way (col. 4, lines 34-36). In addition, an official notice is taken that an ATM VPN comprising at least one VC is well known in the art for its availability as a service provided by many service providers for transporting voice and data components under subscribed quality levels using ATM VC. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined teaching of Yaakov and Lin to include an ATM VPN that comprises at least one virtual channel as recited in the claims. The suggestion/motivation to do so would have been to enable the network to accomplish the routing and measuring in a fixed way and to transport the client's voice/data components under subscribed quality levels.

(ii) Regarding computing a bandwidth utilization measure for the VPN based on at least one VC and comparing the bandwidth utilization measure for the VPN with an over utilization threshold and an under utilization threshold, Riggan teaches the network management system

206 in Fig. 2 that monitors whether the ATM user has exceeded the agreed-upon bandwidth limit (computing bandwidth utilization measure for the VPN which must be based on at least one VC) and the QoS threshold (comparing the bandwidth utilization measure for the VPN with an over utilization threshold which reads on >T and an under utilization threshold which reads on <T). See col. 4, lines 35-55 and Fig. 5, col. 9, lines 16-30, 43-52).

Given the teaching of Riggan, therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined teaching of Yaakov and Lin to include the teaching of Riggan as part of the preferred QoS parameters such that computing a bandwidth utilization measure for the VPN based on at least one VC and comparing the bandwidth utilization measure for the VPN with an over utilization threshold and an under utilization threshold as recited in the claims. The motivation/suggestion to do so would have been to appropriately treat the incoming user's traffic according to the bandwidth utilization measurement as taught by Riggan (col. 4, lines 51-59).

9. Claims 18, 63, and 108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yaakov (USPN 6,748,433 B1) in view of Lin et al ("Lin") (USPN 6,405,250 B1), and further in view of Riggan et al. ("Riggan") (USPN 5,898,673) and Poulin (USPN 6,545,979 B1).

Regarding claims 18, 63, 108, the combined teaching of Yaakov, Lin, and Riggan does not teach computing a CDV measure and a RTTD measure for the VC.

However, Poulin teaches a method for computing a RTTD (RTD) value which can be used to calculate CDV (CDV) for a VC using an ATM OAM cell with timestamps (col. 1, lines 57-63, col. 2, lines 43-59, col. 4, lines 25-35).

Given the teaching of Poulin, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined teaching of Yaakov, Lin, and Riggan to include the concept of computing a RTTD value to calculate CDV for a VC such that computing a CDV measure and a RTTD measure for the VC would be included as recited in the claims. The motivation/suggestion to do so would have been to enable the system to measure and calculate the RTD value of a VC which can be used to calculate CDV of the VC.

10. Claims 23-24, 68-69, and 113-114 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yaakov (USPN 6,748,433 B1) in view of Chen (USPN 5,831, 972).

Regarding claims 23-24, 68-69, and 113-114, Yaakov teaches that the network (10 in Fig. 1) comprises a VPN (a VPN reads on routes on network 10 in Fig. 1 that carry the client's traffic based on the signed SLA, col. 4, lines 6-20 and col. 7, lines 5-7), wherein the access network element (16 in Fig. 1) comprising one network interface (input port).

Yaakov does not explicitly teach that (i) the VPN is an ATM VPN that comprises at least one virtual channel, and (ii) computing a fault measure for the VPN, determining a number of errored seconds and a number of severely errored seconds for the VPN.

(i) However, regarding the ATM VPN, Yaakov further mentioned that the network 10 in Fig. 1 is a PSTN (col.7, lines 5-7) and that the PSTN and ATM networks are similar in such a way that the routing is accomplished in a fixed way (col. 4, lines 34-36). Further, an official notice is taken that an ATM VPN comprising at least one VC is well known in the art for its availability as a service provided by many service providers for transporting voice and data components under subscribed quality levels using ATM VC. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined

teaching of Yaakov and Lin to include an ATM VPN that comprises at least one virtual channel as recited in the claims. The suggestion/motivation to do so would have been to enable the network to accomplish the routing and measuring in a fixed way and to transport the client's voice/data components under subscribed quality levels.

(ii) Regarding computing a fault measure for the VPN, and determining a number of errored seconds and a number of severely errored seconds for the VPN, in an analogous art, Chen teaches a network management system 15 in Fig. 1 for determining a number of errored seconds and a number of severely errored seconds of a VPN (a VPN reads on SONET network 11 that carries customer's traffic) (col. 3, lines 20-50).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Yaakov to include determining a number of errored seconds and a number of severely errored seconds for a VPN as recited in the claims. The motivation/suggestion to do so would have been to enable the network management system to determine performance parameters for any path or connection (col. 3, lines 39-42).

Response to Arguments

11. Applicant's arguments filed 4/27/2006 have been fully considered but they are not persuasive.

A. In the remarks, the Applicants argue that one skilled in the art would not be motivated to combine the intrusive data collection design using RTU 20 of Yaakov (col. 7, lines 16-24) with the passive, non-intrusive design of Lin (col. 6, lines 12-19) as such a combination would appear to be duplicative in that both Yaakov's RTU 20 and the network elements on the network edge

would be tasked with collecting quality data. Such an approach would involve increased expense due to the addition of the RTU20 and increased complexity in determining what data is collected via the RTU 20 and what data is collected at the network elements on the network edge.

In response to applicants' argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, the Examiner respectfully disagrees. Actually, Lin clearly teaches the collection of status information from a network element in ***an intrusive manner***,

> "In order for NMS 120 to gather status information from NE's 101-104, ***each NE must*** either report to NMS 120 voluntarily or ***response to a request from NMS 120; there is no way for NMS 120 to 'passively observe' the behavior of an NE without the cooperation of the NE***. In other words, as part of its design, an NE must report a selected set of status information upon triggering of some internal or external events," (Lin, col. 6, lines 12-19). "***Each NE, through its associated management agent, reports to NMS 120 a set of parameter values as its operating point***" (col. 3, lines 40-46).

Therefore, since Yaakov also teaches the intrusive data collection design using RTU 20 as agreed by the Applicants, it would have been obvious to one skilled in the art at the time the invention was made to combine the teaching of Yaakov with the teaching of Lin such that querying at least one access network element for the quality data would be included as recited in the claim. The suggestion/motivation to do so would have been to enable the network element

to report network status/parameters upon a triggering of an external event, e.g. a request from the NMS, as taught by Lin (col. 6, lines 12-19). Such combination and approach would not be duplicative or expensive as it would only enhance the effectiveness of quality data collecting by enable the existing RTU 20 of Yaakov to collect the quality data from a network by querying the access network element upon a triggering of an external event, e.g. a request from the NMS, thereby freeing up the processing resources of both the data collecting unit (RTU 20) and the access network element when there is no triggering of an external event. Therefore, the rejection is sustained.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nittaya Juntima
July 7, 2006
NJ

STEVEN NGUYEN
PRIMARY EXAMINER